

REMARKS

Claim 4 has been canceled. Claims 14 through 40 have been previously canceled. Claims 1, 5, 9, and 41 have been amended. Claims 1 through 3, 5 through 13, and 41 remain in the application.

Claim 41 has been allowed.

Claims 1 and 41 were objected to because of an informality in these claims. Applicants respectfully traverse this objection.

Claims 1 and 41 have been amended to add the transitional phrase “comprising”. Therefore, it is respectfully submitted that claims 1 and 41 are allowable over the rejection.

Claims 4, 5, and 9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection.

Claim 4 has been canceled. Although Applicants disagree with the Examiner as to proper Markush terminology, claims 5 and 9 have been amended to eliminate Markush terminology from these claims. Therefore, it is respectfully submitted that claims 5 and 9 are allowable over the rejection under 35 U.S.C. § 112, second paragraph.

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Itoh et al. (U.S. Patent No. 5,720,803). Applicants respectfully traverse this rejection.

U.S. Patent No. 5,720,803 to Itoh et al. discloses a biodegradable cellulose ester composition and article. The biodegradable cellulose ester composition may be a composition comprising low-substituted cellulose ester alone or a composition comprising a plurality of cellulose esters varying in the degree of substitution but containing not less than 10 weight % of the low-substituted cellulose ester. The compositions contain additive ingredients that can be classified into a composition comprising the cellulose ester and aliphatic polyester. The aliphatic

polyester includes, for example, polyesters formed by dibasic acids with glycols, polycaprolactones and other polyesters. The dibasic acid includes dicarboxylic acids of about 2 to 14 carbon atoms, for example saturated aliphatic dicarboxylic acids such as oxalic acid, succinic acid, adipic acid, sebacic acid, azelaic acid, sebacic acid, etc. and unsaturated aliphatic dicarboxylic acids such as fumaric acid, itaconic acid and so on. The glycol includes glycols of about 2 to 12 carbon atoms such as ethylene glycol, diethylene glycol, triethylene glycol, 1,2-propanediol, dipropylene glycol, 1,3-butanediol, 1,4-butanediol, 2,2-dimethyl-1,3-propanediol, 1,6-hexanediol, neopentyl glycol, 3-methyl-1,5-pentanediol and so on. The dibasic acid and glycol can be used independently or in combination. Itoh et al. does not disclose a second component being a natural polymer and a third component being a thermoplastic polyester.

In contradistinction, claim 1, as amended, clarifies the invention claimed as a polymer composition including a first component being an adipic polyester, a second component being a natural polymer, and a third component being a thermoplastic polyester. The first component, second component and third component are combined to form the polymer composition.

A rejection grounded on anticipation under 35 U.S.C. § 102 is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A. 1972); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

Itoh et al. '803 does not disclose or anticipate the claimed invention of claim 1. Specifically, Itoh et al. '803 merely discloses a biodegradable cellulose ester composition and

article in which a composition comprises cellulose ester and aliphatic polyester. Itoh et al. '803 lacks a second component being a natural polymer and a third component being a thermoplastic polyester. In Itoh et al. '803, the cellulose ester is not a natural polymer and there is no third component being a thermoplastic polyester. Itoh et al. '803 fails to disclose the combination of a polymer composition including a first component being an adipic polyester, a second component being a natural polymer, and a third component being a thermoplastic polyester, wherein the first component, second component and third component are combined to form the polymer composition as claimed by Applicants. Therefore, it is respectfully submitted that claim 1 is allowable over the rejection under 35 U.S.C. § 102.

Claims 1 and 5 through 13 were rejected under 35 U.S.C. § 103 as being unpatentable over Itoh et al. '803. Applicants respectfully traverse this rejection.

The United States Court of Appeals for the Federal Circuit (CAFC) has stated in determining the propriety of a rejection under 35 U.S.C. § 103, it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 U.S.P.Q. 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). The law followed by our court of review and the Board of Patent Appeals and Interferences is that “[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” In re Rinehart, 531 F.2d 1048, 1051, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976). See also In re Lalu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984) (“In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings would appear to be

sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification.”)

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 1. Specifically, Itoh et al. ‘803 merely discloses a biodegradable cellulose ester composition and article in which a composition comprises cellulose ester and aliphatic polyester. Itoh et al. ‘803 lacks a second component being a natural polymer and a third component being a thermoplastic polyester. In Itoh et al. ‘803, the cellulose ester is not a natural polymer and there is no third component being a thermoplastic polyester. As such, there is no suggestion or motivation in the art to modify Itoh et al. ‘803.

The present invention sets forth a unique and non-obvious combination of a polymer composition that is biodegradable and allows molded items to be formed such as planter pots, disposable razors, cutlery, pen casings, etc., with little concern of softening at high temperatures of up to and more than 100°C. The references, if combinable, fail to teach or suggest the combination of a polymer composition including a first component being an adipic polyester, a second component being a natural polymer, and a third component being a thermoplastic polyester, wherein the first component, second component and third component are combined to form the polymer composition as claimed by Applicants.

Further, the CAFC has held that “[t]he mere fact that prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification”. In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). The Examiner has failed to show how the prior art suggested the desirability of modification to achieve Applicants’ invention. Thus, the Examiner has failed to establish a case of prima facie obviousness. Therefore, it is respectfully submitted that claim 1 and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. § 103.

Claims 2 and 3 were rejected under 35 U.S.C. § 103 as being unpatentable over Itoh et al. '803 and further in view of Xu et al. (U.S. Patent No. 5,821,286). Applicants respectfully traverse this rejection for the same reasons given above to claim 1.

Obviousness under § 103 is a legal conclusion based on factual evidence (*In re Fine*, 837 F.2d 1071, 1073, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988), and the subjective opinion of the Examiner as to what is or is not obvious, without evidence in support thereof, does not suffice. Since the Examiner has not provided a sufficient factual basis, which is supportive of his position (see *In re Warner*, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (C.C.P.A. 1967), *cert. denied*, 389 U.S. 1057 (1968)), the rejections of claims 1 through 3 and 5 through 13 are improper. Therefore, it is respectfully submitted that claims 1 through 3 and 5 through 13 are allowable over the rejections under 35 U.S.C. § 103.

Based on the above, it is respectfully submitted that the claims are in a condition for allowance, which allowance is solicited.

Respectfully submitted,

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